

IN THE CLAIMS:

Please amend the claims as follows:

1. (Cancelled)

2. (Currently amended) A substantially purified nucleic acid molecule that encodes a maize or a soybean enzyme or fragment of said enzyme, wherein said nucleic acid molecule comprises a nucleic acid sequence selected from the group consisting of SEQ ID NOs:11, 446, 935, 1108, 2042, 2166, 2252, 2644, 2681, and 2753, wherein said enzyme encoded by said nucleic acid molecule is ~~selected from the group consisting of~~ triose phosphate isomerase, vacuolar H⁺ translocating-pyrophosphatase, sucrose synthase, hexokinase, fructose 1,6-bisphosphate aldolase, fructose 6-phosphate 2-kinase, invertase, fructokinase, NDP-kinase, and UDP-glucose pyrophosphorylase, respectively.

3. (Cancelled)

4. (Cancelled)

5. (Cancelled)

6. (Cancelled)

7. (Previously Presented) A substantially purified nucleic acid molecule comprising a nucleic acid sequence selected from the group consisting of SEQ ID NOs: 11, 446, 935, 1108, 2042, 2166, 2252, 2644, 2681, and 2753.

8. (Previously Presented) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 11.

9. (Previously Presented) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 446.

10. (Previously Presented) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 935.

11. (Previously Presented) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 1108.

12. (Previously Presented) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 2042.

13. (Previously Presented) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 2166.

14. (Previously Presented) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 2252.

15. (Previously Presented) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 2644.

16. (Previously Presented) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 2681.

17. (Previously Presented) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 2753.

18. (Previously Presented) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a maize triose phosphate isomerase, and wherein said nucleic acid sequence is SEQ ID NO: 11.

19. (Previously Presented) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a maize vacuolar H⁺ translocating-pyrophosphatase, and wherein said nucleic acid sequence is SEQ ID NO: 446.

20. (Previously Presented) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a maize sucrose synthase, and wherein said nucleic acid sequence is SEQ ID NO: 935.

21. (Previously Presented) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a maize hexokinase, and wherein said nucleic acid sequence is SEQ ID NO: 1108.

22. (Previously Presented) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a soy fructose 1,6-bisphosphate aldolase, and wherein said nucleic acid sequence is SEQ ID NO: 2042.

23. (Previously Presented) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a soy fructose 6-phosphate 2-kinase, and wherein said nucleic acid sequence is SEQ ID NO: 2166.

24. (Previously Presented) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a soy invertase, and wherein said nucleic acid sequence is SEQ ID NO: 2252.

25. (Previously Presented) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a soy fructokinase, and wherein said nucleic acid sequence is SEQ ID NO: 2644.

26. (Previously Presented) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a soy NDP-kinase, and wherein said nucleic acid sequence is SEQ ID NO: 2681.

27. (Previously Presented) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a soy UDP-glucose pyrophosphorylase, and wherein said nucleic acid sequence is SEQ ID NO: 2753.